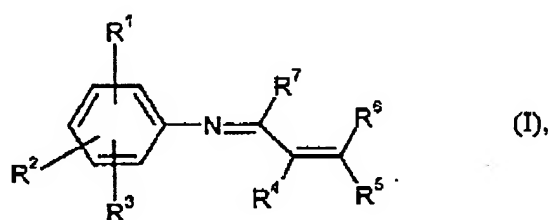


Amendment to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application. Please note that no changes to the claims have been presently made.

Claim 1. (Previously Presented) A method for reducing the aging characteristics of a rubber vulcanizate comprising admixing an anti-aging agent, based on organic compounds comprising azadiene groups of the general formula (I)



wherein

R^1 represents hydrogen, straight-chain or branched C_1 - C_{12} -alkyl, C_1 - C_{12} -alkoxy-, C_1 - C_{12} -alkylthio-, C_1 - C_{12} -alkylamino, di- $(C_1$ - C_{12} -alkyl)-amino-, C_6 - C_{14} -aryl-, C_6 - C_{14} -aryloxy-, C_6 - C_{14} -arylthio-, C_6 - C_{14} -arylamino, C_2 - C_{12} -heteroaryl-, C_2 - C_{12} -heteroaryloxy-, C_2 - C_{12} -heteroarylthio-, C_2 - C_{12} -heteroarylamino,

R^2 and R^3 are the same or different and represent straight-chain or branched C_1 - C_{12} -alkyl, C_1 - C_{12} -alkoxy-, C_1 - C_{12} -alkylthio-, C_1 - C_{12} -alkyl-amino, di- $(C_1$ - C_{12} -alkyl)-amino-, benzyl-, 1,1-dimethylbenzyl- or phenyl-,

or together form a 5-10-link aliphatic or aromatic, mono- or polynuclear ring system, which may optionally be interrupted once or more than once by heteroatoms selected from the group consisting of N, O and S,

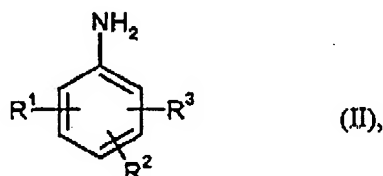
R^4 to R^7 are the same or different and represent hydrogen, straight-chain or branched C_1 - C_{12} -alkyl-, C_5 - C_{12} -cycloalkyl- or C_6 - C_{14} -aryl-, mono- or

PO-7785

-2-

polyunsaturated, olefinic or acetylenic, straight-chain or branched C₂-C₁₂-alkenyl-, C₂-C₁₂-alkynyl- or C₅-C₈-cycloalkenyl, or together form a 5-8-link, aliphatic ring system, which may optionally be interrupted once or more than once by heteroatoms selected from the group consisting of N, O and S, with at least one rubber monomer and a vulcanizing agent.

Claim 2. (Previously Presented) A method according to Claim 1, wherein the anti-aging agent is prepared by reacting substituted primary aromatic amines of the formula (II)



wherein,

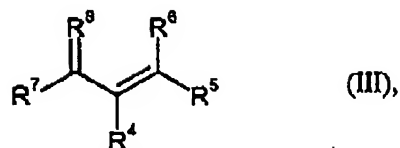
R¹ represents hydrogen, straight-chain or branched C₁-C₁₂-alkyl, C₁-C₁₂-alkoxy-, C₁-C₁₂-alkylthio-, C₁-C₁₂-alkylamino, di-(C₁-C₁₂-alkyl)-amino-, C₆-C₁₄-aryl-, C₆-C₁₄-aryloxy-, C₆-C₁₄-arylthio-, C₆-C₁₄-arylamino, C₂-C₁₂-heteroaryl-, C₂-C₁₂-heteroaryloxy-, C₂-C₁₂-heteroarylthio- and C₂-C₁₂-heteroarylamino,

R² and R³ are the same or different and represent straight-chain or branched C₁-C₁₂-alkyl, C₁-C₁₂-alkoxy-, C₁-C₁₂-alkylthio-, C₁-C₁₂-alkyl-amino, di-(C₁-C₁₂-alkyl)-amino-, benzyl-, 1,1-dimethylbenzyl-, phenyl-,

or together form a 5-10-link aliphatic or aromatic, mono- or polynuclear ring system, which may optionally be interrupted once or more than once by heteroatoms selected from the group consisting of N, O and S, with optionally substituted conjugated 1,3-enones and/or 1,3-enals of the formula (III)

PO-7785

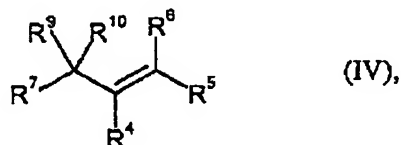
-3-



wherein, R^4 to R^7 are the same or different and represent of hydrogen, straight-chain or branched C_1 - C_{12} -alkyl-, C_5 - C_{12} -cycloalkyl- or C_6 - C_{14} -aryl-, mono- or polyunsaturated, olefinic or acetylenic, straight-chain or branched C_2 - C_{12} -alkenyl-, C_2 - C_{12} -alkinyl- or C_5 - C_8 -cycloalkenyl, or together form a 5-8-link, aliphatic ring system, which may optionally be interrupted once or more than once by heteroatoms selected from the group consisting of N, O and S.

and wherein R^8 represents oxygen, sulfur and NR^4 group

and/or their synthetic equivalents of the formula (IV)



wherein,

R^9 and R^{10} are the same or different and represent hydroxy, chloro, bromo, straight-chain or branched C_1 - C_{12} -alkoxy, C_1 - C_{12} -alkylthio, C_1 - C_{12} -alkylamino or together form a C_2 - C_{12} -alkanedioxy- or C_2 - C_{12} -alkanediamino group.

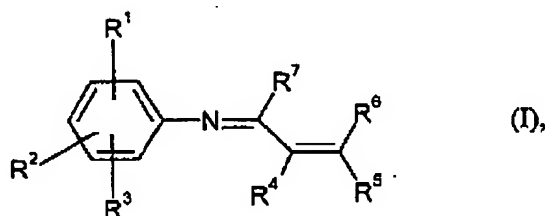
Claim 3. Cancelled.

PO-7785

-4-

Claim 4. (Previously Presented) A method according to Claim 1 further comprising admixing least one additional anti-aging agent, wherein the mix. ratio of anti-aging agents according to Claim 1 to at least one additional anti-aging agent is 10:1 to 1:10.

Claim 5. (Previously Presented) A rubber mixture comprising at least one rubber monomer, at least one anti-aging agent and a vulcanizing agent, wherein the anti-aging agent is based on organic compounds comprising azadiene groups of the general formula (I)



wherein

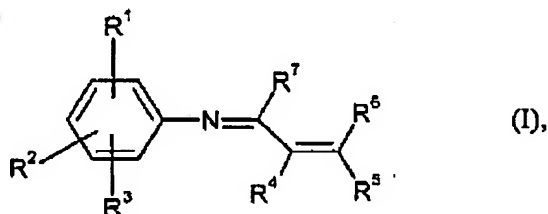
R¹ represents hydrogen, straight-chain or branched C₁-C₁₂-alkyl, C₁-C₁₂-alkoxy-, C₁-C₁₂-alkylthio-, C₁-C₁₂-alkylamino, di-(C₁-C₁₂-alkyl)-amino-, C₆-C₁₄-aryl-, C₆-C₁₄-aryloxy-, C₆-C₁₄-arylthio-, C₆-C₁₄-arylamino, C₂-C₁₂-heteroaryl-, C₂-C₁₂-heteroaryloxy-, C₂-C₁₂-heteroarylthio-, C₂-C₁₂-heteroarylamino,

R² and R³ are the same or different and represent straight-chain or branched C₁-C₁₂-alkyl, C₁-C₁₂-alkoxy-, C₁-C₁₂-alkylthio-, C₁-C₁₂-alkyl-amino, di-(C₁-C₁₂-alkyl)-amino-, benzyl-, 1,1-dimethylbenzyl- or phenyl-,

or together form a 5-10-link aliphatic or aromatic, mono- or polynuclear ring system, which may optionally be interrupted once or more than once by heteroatoms selected from the group consisting of N, O and S,

R^4 to R^7 are the same or different and represent hydrogen, straight-chain or branched C_1 - C_{12} -alkyl-, C_5 - C_{12} -cycloalkyl- or C_6 - C_{14} -aryl-, mono- or polyunsaturated, olefinic or acetylenic, straight-chain or branched C_2 - C_{12} -alkenyl-, C_2 - C_{12} -alkinyl- or C_5 - C_8 -cycloalkenyl, or together form a 5-8-link, aliphatic ring system, which may optionally be interrupted once or more than once by heteroatoms selected from the group consisting of N, O and S.

Claim 6. (Previously Presented) A process for preparing a rubber mixture according to Claim 5, comprising mixing one or more rubber monomer with an anti-aging agent and a vulcanizing agent, wherein the anti-aging agent is based on organic compounds comprising azadiene groups of the general formula (I)



wherein

R^1 represents hydrogen, straight-chain or branched C_1 - C_{12} -alkyl, C_1 - C_{12} -alkoxy-, C_1 - C_{12} -alkylthio-, C_1 - C_{12} -alkylamino, di- $(C_1$ - C_{12} -alkyl)-amino-, C_6 - C_{14} -aryl-, C_6 - C_{14} -aryloxy-, C_6 - C_{14} -arylthio-, C_6 - C_{14} -arylamino, C_2 - C_{12} -heteroaryl-, C_2 - C_{12} -heteroaryloxy-, C_2 - C_{12} -heteroarylthio-, C_2 - C_{12} -heteroarylamino,

R^2 and R^3 are the same or different and represent straight-chain or branched C_1 - C_{12} -alkyl, C_1 - C_{12} -alkoxy-, C_1 - C_{12} -alkylthio-, C_1 - C_{12} -alkyl-amino, di- $(C_1$ - C_{12} -alkyl)-amino-, benzyl-, 1,1-dimethylbenzyl- or phenyl-,

or together form a 5-10-link aliphatic or aromatic, mono- or polynuclear ring system, which may optionally be interrupted once or more than once by heteroatoms selected from the group consisting of N, O and S,

R^4 to R^7 are the same or different and represent hydrogen, straight-chain or branched C_1 - C_{12} -alkyl-, C_5 - C_{12} -cycloalkyl- or C_6 - C_{14} -aryl-, mono- or polyunsaturated, olefinic or acetylenic, straight-chain or branched C_2 - C_{12} -alkenyl-, C_2 - C_{12} -alkinyl- or C_5 - C_8 -cycloalkenyl, or together form a 5-8-link, aliphatic ring system, which may optionally be interrupted once or more than once by heteroatoms selected from the group consisting of N, O and S.

Claim 7. Cancelled.